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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,616	02/28/2002	Duane Detwiler	105450-00009	1622

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EXAMINER

GUTMAN, HILARY L

ART UNIT	PAPER NUMBER
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3612

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,616

Applicant(s)

DETWILER ET AL.

Examiner

Hilary Gutman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 6, and 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Ponsonnaille et al.

Ponsonnaille et al. disclose an impact reduction vehicle bumper system comprising: at least two frame rails 12; at least two brackets 16 coupled respectively to the at least two frame rails 12; a beam 24 attached to the at least two brackets 16; a plate member 26 attached to the beam; and at least two frame rail extensions 22 coupled to the at least two brackets 16, each bracket 16 of the at least two brackets is disposed between and directly connected to a first longitudinal end face of a corresponding frame rail of the at least two frame rails and either one of a first longitudinal end face and a second longitudinal end face of the beam 24, and wherein the first and second longitudinal end faces of the beam are parallel relative to a longitudinal axis of each frame rail extension 22 and the first longitudinal end face of each frame is orthogonal relative to the longitudinal axis of each frame rail. The brackets 16 are side brackets. The plate member 26 has a generally U-shaped cross-section (or a generally V-shaped cross section). The impact reduction system is a vehicle front bumper. The vehicle front bumper is mountable on a vehicle.

For claims 11 and 12, it is believed that if the bumper system as recited exhibits the adequate peak force (<7.5 kN) and the adequate peak moment (<510 Nm) then it would follow that other prior art bumper systems having the same features would also exhibit there characteristic results.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Ponsonnaille et al.

Ponsonnaille et al. disclose an impact reduction vehicle bumper system comprising: at least two frame rails 12; at least two brackets 16 coupled respectively to the at least two frame rails 12; a beam 24 attached to the at least two brackets 16; a plate member or skin (not shown) attached to the beam; and at least two frame rail extensions 22 coupled to the at least two brackets 16, each bracket 16 of the at least two brackets is disposed between and directly connected to a first longitudinal end face of a corresponding frame rail of the at least two frame rails and either one of a first longitudinal end face and a second longitudinal end face of the beam 24, and wherein the first and second longitudinal end faces of the beam are parallel relative to a longitudinal axis of each frame rail extension 22 and the first longitudinal end face of each frame is orthogonal relative to the longitudinal axis of each frame rail.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ponsonnaille et al. in view of the well known prior art.

Ponsonnaille et al. lack the plate member, beam and brackets, and frame rail extensions being made of steel.

Composing bumper members of steel is well known in the prior art (the examiner takes official notice of this fact) since steel provides high strength and collision-energy absorption, improved energy transfer characteristics, excellent durability and corrosion resistance, as well as having good formability and being lightweight.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the components of Ponsonnaille et al. out of steel as taught by the well known prior art in order to provide the bumper system of Ponsonnaille et al. with high strength and good shock absorption.

Ponsonnaille et al., as modified, lacks the plate member being welded to the beam and further lack the beam and frame rail extensions being welded to the brackets.

It should be noted that the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process (MPEP 2113).

11. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ponsonnaille et al. in view of Goupy.

Ponsonnaille et al. disclose a plate member or skin.

Ponsonnaille et al. lack the plate member being U-shaped in cross-section and extending over a front portion of the beam having a multi-step U-shaped cross-section and more specifically a three-step U-shaped cross-section.

Goupy teaches an impact reduction vehicle bumper system for a vehicle for reducing the force upon impact with an object comprising (Figures 1-2 and 9): a beam 2 and a plate member 1 attached to the beam. The plate member has a frontal face 21 and upper and lower borders 22. The plate member also has a multi-step U-shaped cross-section and more specifically a three-step U-shaped cross-section (Figure 9). The purpose of this is to create a "ripple-bearing" which provides increased mechanical resistance characteristics and maximum bending moments to the bumper system when subjected to stress.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a plate member with a three-step (or multi-step) U-shaped cross-section as taught by Goupy upon the beam of Ponsonnaille et al. (in place of the skin) in order to increase the energy absorbing characteristics of the bumper system and in order to increase

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mechanical resistance and maximize the bending moments of the bumper system when subjected to stress.

11. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ponsonnaille et al. in view of Shibuya et al.

Ponsonnaille et al. disclose a frame rail extension 22 including apparently a vertical wall (Figures 1 and 3).

Shibuya et al. teach an impact reduction vehicle bumper system for a vehicle for reducing the force upon impact with an object comprising: at least two frame rails mounted on the vehicle body; at least two brackets 3, 45, coupled respectively to the at least two frame rails; a beam 5 indirectly attached to the at least two brackets; a plate member 11 attached to the beam; and at least two frame rail extensions 4 coupled to the at least two brackets. The frame rail extensions 4 include an upper extension 21, a lower extension 31, and an inner extension 41. The upper and lower extensions 21, 31 form an angles box and the inner extension 41 is disposed between the upper and lower extensions.

Shibuya et al. teach the desirability of this type of frame rail extension so that when a large impact energy acts upon the bumper system, the impact energy is quickly transferred to the chassis through the front end of the frame rail extension (Column 1, lines 45-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the frame rail extensions as taught by Shibuya et al. in place of those of Ponsonnaille et al. in order to provide a structure which can quickly transfer or redirect impact

energy to the chassis through the front end of the frame rail extension when a large impact energy acts upon the bumper system.

Response to Arguments

7. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hilary Gutman whose telephone number is 703-305-0496. The examiner can normally be reached on M-F 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Dayoan can be reached on 703-308-3102. The fax phone number for the organization where this application or proceeding is assigned is 703-308-3297.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1134.

11. **Any response to this final action should be mailed to:**

Box AF

Assistant Commissioner for Patents

Washington, D.C. 20231


or faxed to:

(703) 872-9327, (for formal communications; please mark "EXPEDITED
PROCEDURE")

or:

(703) 746-3515, (for informal or draft communications, please clearly label
"PROPOSED" or "DRAFT").

hlg
December 4, 2003


DENNIS H. PEDDER
PRIMARY EXAMINER
AU362
12/4/03